Logistics Modernization? Control of Ship-to-Shore Movement in

Amphibious Operations Needs the same Attention.

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Introduction

   "Current wartime deployments dictate an almost singular focus on preparing units for their next rotation in irregular warfare operations. As a result, the skills Marines need for combined-arms maneuver, mountain warfare, amphibious, and jungle operations have deteriorated."[1]

   Efforts to modernize Marine Corps' logistics processes have focused on lessons learned in Afghanistan and Iraq, but a critical node is being neglected. Corporate knowledge of amphibious operations is currently retained only within Marine Expeditionary Units (MEU) and through the relationships the MEUs form during Naval Expeditionary Strike Group (ESG) partnerships. While logistics modernization efforts during Operation Iraqi Freedom / Operation Enduring Freedom (OIF/OEF) have focused on maintaining a common operational picture and supply distribution operations, the skills required to manage ship-to-shore movement in amphibious operations have atrophied. The Commandant of the Marine Corps articulated his vision for a post OIF/OEF Marine Corps embarked with its Naval partner when stating that, "…an amphibious combat force operating from a sea base – will be able to respond rapidly and win decisively."[2] In keeping with the Commandant's intent, the current configuration of the tactical-logistical (TACLOG) group must be updated with same state of the art command and control capabilities, audio visual equipment,

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[1] James T. Conway, "34th Commandant of the Marine Corps' Commandants Planning Guidance," (2006): 4
[2] James T. Conway, "34th Commandant of the Marine Corps' Commandants Planning Guidance," (2006): 6

and information management techniques that are being used in

the, ground-based, operating environment to facilitate C2 and

information sharing during an amphibious landing and the build

up of combat power ashore.

Background

> The TACLOG group is a temporary landing force organization
> that is located on the same ship as the Navy's ship-to-
> shore movement control organization. The group is made up
> of representatives designated by Marine commanders to
> assist Navy control officers aboard amphibious ships in the
> ship-to-shore movement of Marines, equipment, and supplies.
> It advises the Navy and landing force (LF) commanders, and
> Navy control officers of changes in the LF portion of the
> landing plan and their effects on the tactical situation
> ashore. The TACLOG group also facilitates the movement of
> tactical units and logistical support requested by LF
> tactical commanders ashore, and provides the LF commander
> with the status of ship-to-shore movement and a mechanism
> to influence the operations ashore.[3]

The counterparts to the TACLOG group are also task

organized and scalable in size. In addition to the TACLOG, the

LF may establish a landing force support party (LFSP), generally

containing a Marine Corps shore party group (SPG), a MAGTF

helicopter support team (HST), and a naval beach group (NBG).

These units facilitate the scheme of maneuver ashore, provide

tactical and logistical support to the LF units ashore, and

maintain the LF commander's situational awareness of the

operation's progress. Add to this a unit movement control

center (UMCC) that monitors the convoy's inland movement, team

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[3] Department of the Navy, United States Marine Corps, "MCWP 3-31.5 Ship-to-shore Movement," (2007): F-1

embarkation officers (TEOs), and team embarkation assistants

(TEAs) spread among several ships and a huge challenge emerges

to communicate with these Marine and Navy organizations, to

develop a common operational picture, and to disseminate

information to those that need it the most.

Command and Control

"Based on the mission, the TACLOG group is the primary and
critical link between the MAGTF and the Navy control
organization, LFSP, and HST. The TACLOG must know the status of
all phases of the ship-to-shore movement and the status of the
LFSP, shore party, HST, and the Navy control organization."[4]

Presently

The standard communication architecture for most TACLOG

groups does not reflect the rapid changes that have occurred in

support of operations ashore. Generally, doctrinal VHF/HF radio

mounts or "red phones," ship's internal handheld radios (that

can talk point-to-point within the skin of the ship), and

telephones only provide basic voice communications. If the

TACLOG watch officer misses something over the radio an

immediate loss of situational awareness and possible degradation

of ship-to-shore tempo occurs. This current command and control

system is a necessity. However, voice communications should

become the back up system by taking full advantage of the array

of data communication options presently available to Marine

logisticians in the current ground-based operating environment.

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[4] Department of the Navy, United States Marine Corps, "MCWP 4-11.3 Transportation Operations," (2001): 2-17

<u>Proposed</u>

For logisticians in the current era, data visibility and manipulation has surpassed voice for quality, accuracy, and reliability. Logistics, as a science, is driven by data. Consequently, several standard tools should be incorporated in all TACLOG groups aboard amphibious shipping.

Internet Relay Chat

Using an internet relay chat client for windows (i.e., mIRC, which has become the standard in OIF/OEF), data can be communicated real time to multi-user group conferences or in one-on-one discussions with others on the IRC network.[5] Many potential issues can be solved before they become problems by bringing the TACLOG group, LFSP / UMCC ashore, Navy control organizations, and the TEO / TEAs from other ships together in a single data exchanging forum. Ensuring the LFSP has a medium to pass data from the beach to the ship is vital to the tempo of an offload.

Man-portable Data Transmission System

The critical element of the ship-to-shore data exchange between the LFSP and the TACLOG is a man-portable transmissions system. The need exists for an easy-to-use, man-portable communications medium that provides the LFSP with the organic

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[5] "mIRC: Internet Relay Chat client." http://www.mirc.com/mirc.html, (accessed Dec. 01 2007)

capability to send and receive secret data. Having this system
man-portable eliminates reliance on a radio variant vehicle
(i.e. a MRC-142) during the initial waves ashore and promotes
flexibility when establishing the LFSP. This desired man-
portable capability has been accomplished by using commercial
mobile satellite services, such as Inmarsat's, coupled with
secure modems or, more recently, BGAN with TALON. However, this
capability needs to be organic to the combat logistics
battalion's table of organization and equipment, as do the
trained data operators.[6] Besides using this capability to chat
with the ships, the man-portable communications system could be
used to send and receive scanned data loaded from equipment
marked with Radio Frequency Identification (RFID) tags.

<center>*RFID*</center>

Currently all major end items that board amphibious
shipping must have passive radio frequency identification tags
attached to them. By equipping amphibious shipping with the
capability to read, or interrogate these tags as they enter and
exit the well, hanger, and flight decks, data can be shared with
all logistic nodes in the ship-to-shore movement chain as tagged
supplies and equipment pass from ship-to-shore and vice versa.
No current system exists aboard amphibious ships to conduct this

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[6] Total Force Structure Management System's TO&E Report for a MEU coupled with the Unit Equipment Report
lack the desired communications listed.

interrogation without adversely impacting existing

communications or infringing on hazards of electromagnetic

radiation to ordnance (HERO) guidance.[7] In addition to utilizing

digital tracking of equipment flowing from ship-to-shore,

tracking personnel could also be made more efficient by using

the digital information stored on the DoD common access card.

Common Access Card Manifesting System

Ship's need to be configured to support automated

manifesting, and a DoD common access card system needs to be

fielded to each MSE of the MAGTF. Manifesting Marines for

embarkation/debarkation, while simple in concept, is a very

difficult task. Multiple means and points of debarkation

coupled with the noise of helicopters and landing craft during

simultaneous operations on three or more ships cumulatively

builds a personnel accountability nightmare. Digitally

manifesting personnel could be the solution.

Currently each Marine fills out his name/rank/ssn/blood

type for each movement. By utilizing the DoD standard common

access card that all DoD employees are required to carry, a unit

could manifest and digitally post exactly who is leaving by

landing craft or helicopter.[8] Putting this capability on the

beach, in the welldeck, and in flight deck triage, ensures that

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[7] Department of the Navy, United States Marine Corps, USMC Radio Frequency Identification (RFID) Implementation Plan, (2006): 22

[8] "CAC Card Info," https://www.cac.mil/CardInfo.do. (accessed Dec. 01, 2007).

Marines coming and going can be quickly and accurately

manifested with the results being digitally disseminated near

real time.

Audio Visual Equipment

<u>Presently</u>

Currently the LHA/LHD TACLOG is equipped with one or two

16-inch closed circuit TV's. During ship-to-shore movements the

TV's are tuned to display video broadcasts of the approach to

the stern-gate, the well deck, upper and lower vehicle decks,

the hanger deck, and the various views of the flight deck.

While better than no TV at all, a 16-inch display does little to

provide the fidelity that a TACLOG watch officer needs. It

should be noted that TV's of this size are seldom found in the

command posts in the current ground-based operating environment.

<u>Proposed</u>

During its 2006 deployment, the USS Iwo Jima, LHD-7,

allowed the 24th MEU to modify its existing TACLOG by replacing

the archaic plexiglass grease boards with four 42-inch plasma

TVs. The TV screens were split to display mIRC chat and the

command web page, while also projecting larger images from the

feeds of the smaller 16-inch televisions. This enabled the

watch officer to recognize the details of the air and landing

craft, view what was happening in the well/vehicle/hanger and

flight decks, and couple that information with the verbal

communications piping in over the radio nets to further develop
the common operational picture.[9]

Information Management

Presently

One of the objectives of the TACLOG group is to receive,
orient, and display relevant information in such a way that it
is of value to the landing force commander to make decisions.
Presently, the common tools of the trade for recording all of
this information, such as green log books and grease boards, are
outdated. To illustrate, for the LF commander to monitor the
status of ship-to-shore movement he currently has to call or
enter the TACLOG physically to receive an accurate update.

Proposed

By capitalizing on the information management lessons
learned from OIF / OEF ground-based operations, the TACLOG can
facilitate operational decisions more efficiently by utilizing
web-based applications. One such application is a command
journal. The Command Journal is a web-based logbook that serves
as a single point of reference and input for significant events
in the landing force. Anyone with access to the secret internet
provider network (SIPR net) can view the journal by accessing
the landing force's web page. Typically mislabeled as solely an

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[9] "Major Clifton B. Carpenter USMC" Phone Interview concerning his the TACLOG group on his most recent deployment as the Logistics Officer for the 24th MEU

operations section tool, the command journal is mostly populated

by the TACLOG group during ship-to-shore movement and the build

up of combat power ashore. The command journal allows the

commander to monitor the surface, air, and convoys' movement

progress with a quick scan of his webpage. More detailed

information, required by logisticians throughout the MAGTF, can

also be attached to each journal entry. Documents such as the

air-plan, surface-plan, serial assignment tables, surface craft

load plans, and convoy staging plans can add the details

necessary to maintain situational awareness of the

onload/offload and build up of combat power ashore.

Counter Arguments

Some will argue that hand written logbooks and voice

communications to conduct ship-to-shore movement "isn't broken,

so why fix it." Moreover, when "going digital," hardcopies

copies will still have to be maintained in the event of the

inevitable loss of power and proficiency in voice communications

will need to be maintained to mitigate the damage of a loss in

data connectivity. However, these are not legitimate reasons for

the TACLOG groups to ignore the technology that is available to

them which can sharpen the situational awareness of the

commander and ultimately drive a faster-decision making process.

Conclusion

The age old adage of "That's the way we've always done it" has lost its value in the current land-based operating environment as innovation and advancements in communications, audio visual equipment, and information management have improved command and control. Applying these lessons learned and incorporating the logistics modernization effort to amphibious logistics will serve the Marine Corps well as it prepares for the long war. Throughout the current war, the USMC has been forced to modernize its ground based command and control ashore at great cost to the engaged forces. Waiting for the next real world amphibious operation that requires forcible entry will be too late to update USMC ship-to-shore control mechanisms. In order to meet the Commandant's intent, logistics modernization advocates must integrate technologies into the process of controlling ship-to-shore movement.

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